

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-22. (Canceled).

23. (Previously Presented) A panel unit as claimed in claim 24, wherein said cap member is made from a plastic material.

24. (Currently Amended) A panel unit for use as part of a concrete form, said panel ~~member~~ unit comprising:

(i) first and second spaced apart longitudinally oriented foam plastic panel members defining a form space there between;

(ii) a spacer comprising at least one transverse tie rod member secured to and extending between said first and second panels, said transverse tie rod member having a first end adapted to be secured to a first connector for connecting said transverse tie rod member to said first panel member;

wherein said first connector comprises a connector assembly for use in securing said first panel member to a transverse tie member, said connector assembly comprising:

(a) a cap member having a flange cap portion and a shaft portion, said shaft portion with an end having an opening adapted to be interconnected to an end portion of a tie member; and

-Page 3-

- (b) a bushing member having a flange portion and an axially aligned shaft portion with an end opposite to said flange portion, said bushing member having a continuous cavity formed in and passing through said flange portion and said shaft portion;

said shaft portion of said cap member being receivable axially into said continuous cavity of said bushing member through said flange portion toward said end of said shaft portion for releasable engagement with said end of said tie member extending through said end of said bushing member into said continuous cavity; and

said flange portion of said bushing having at least one aperture passing there through, said aperture and having an opening for permitting the fluid communication of flowable concrete into said aperture, said aperture being configured such that when concrete flows into and hardens in said aperture, said hardened concrete in said aperture of said bushing member which is integrally connected to hardened concrete outside of said aperture of said bushing member provides an anchoring device to hold said bushing member in said hardened concrete.

25. (Previously Presented) A panel unit as claimed in claim 24, wherein said at least one aperture in said flange of said bushing member is configured in a generally conical shape, with a base of said conical shape of said at least one aperture being positioned in contact with said inner surface of said first panel member.

26-29. (Canceled).

30. (Previously Presented) A panel unit as claimed in claim 84 wherein said first connector comprises a connector assembly, said connector assembly comprising:

-Page 4-

- (a) a cap member having a flange cap portion and a shaft portion, said shaft portion with an end having an opening adapted to be interconnected to said first end portion of said tie member; and
- (b) a bushing member having a flange portion and an axially aligned shaft portion with an end opposite to said flange portion, said bushing member having a continuous cavity formed in and passing through said flange portion and said shaft portion;

said shaft portion of said cap member being receivable axially into said continuous cavity of said bushing member through said flange portion toward said end of said shaft portion for releasable engagement with said end of said tie member extending through said end of said bushing member into said continuous cavity and said end of said bushing member having guide members depending inwardly to guide said first end of said tie member into axial alignment with said opening in said cap portion,

said shaft portion of said cap member having a length sufficient such that said cap member can co-operate with said bushing member to provide compression of said first panel member.

31-68. (Canceled).

- 69. (Previously Presented) A panel unit as claimed in claim 111 wherein the plastic film is made from polypropylene.
- 70. (Previously Presented) A panel unit as claimed in claim 84 wherein said inner surfaces of both of said first and second panel members are laminated with a suitable plastic film material to prevent adhesion with concrete so that both said

-Page 5-

first and second panel members can be removed when said concrete has hardened and re-used as a panel unit as a part of another concrete form.

71-79. (Canceled).

80. (Previously Presented) A panel unit as claimed in claim 84 wherein said first connector comprises a connector assembly for use in securing a panel member to said spacer with said transverse tie member, said connector assembly comprising:

- (a) an outer member having an outer retaining portion and a shaft portion, said shaft portion with an end having an opening adapted to be interconnected to said end portion of said tie member; and
- (b) a bushing member positioned proximate an inner surface of said first panel member between said first panel member and said second panel member, said bushing member having an axially aligned shaft portion with a first end having proximate thereto a stopping portion, and said shaft portion having an second end opposite to said first end, said bushing member having a continuous cavity formed in and passing through said shaft portion extending from said first end to said second end;

said outer retaining portion of said outer member holding said first panel member when subjected to outward forces and said shaft portion of said outer member being receivable into said first panel member axially into said continuous cavity of said bushing member from said first end to said second end of said shaft portion so as to be able to engage said end of said tie member extending through said second end of said bushing member into said continuous cavity, said shaft portion of said outer member also engaging an abutment in said continuous cavity of said bushing member so to limit the compression of said panel member by

-Page 6-

limitation of the extent of axial movement of said shaft portion of said outer member relative to said bushing member toward said second end of said shaft portion of said bushing member;

whereby said first panel member is held in compression between said outer member and said stopping portion of said bushing member.

81. (Previously Presented) A panel unit as claimed in claim 85 wherein said second connector comprises:

(a) a cap portion and a shaft portion interconnected to said cap portion, said shaft portion with an end having an opening adapted to be interconnected to said second end of said tie member, said cap portion having an inner surface and an opposed outer surface, said inner surface of said cap portion facing said inner surface of said second panel member;

(b) a cutting element positioned beneath said inner surface of said cap portion;

whereby when said connector member is rotated to provide a connection with said tie member, said connector member is axially drawn toward said tie member and said cutting element will form a recess in an outer surface of said second panel member for receiving said cap portion, so that said cap portion does not protrude beyond said outer surface of said second panel member and said second panel member can remain in situ after said concrete has hardened.

82. (Canceled).

-Page 7-

83. (Previously Presented) A panel unit as claimed in claim 111 wherein said first connector has a shaft portion that passes transversely through an aperture in said first panel member to engage said first end of said first transverse tie member.
84. (Previously Presented) A panel unit for use as part of a concrete form for a concrete wall, said panel unit comprising:
- (a) first and second panel members being made from a foamed plastic and spaced apart in a transverse direction to define a form space there between, said first panel member having an inner surface facing an inner surface of said second panel member; said first and second panel members each having outer surfaces, each of said outer surfaces of said first and second panel members being opposed to respective said inner surfaces of said first and second panel members; said inner surface of said first panel member having non-adhesive properties in relation to hardened concrete held in said form space;
 - (b) a spacer transversely disposed between said first and second panel members and holding said first and second panel members in generally transversely spaced relation to each other, said spacer comprising:
 - (i) at least one transverse tie member having a first end and an opposite second end, said first end being adapted for securing said transverse tie member to a first connector mounted to said first panel member and a second connector secured to said second end of said at least one transverse tie member, said first connector being adapted to be removed from the tie member from said outer surface when said form space is filled with hardened concrete, wherein said first end of said tie member being located within close proximity of the said inner surface of said

-Page 8-

first panel member and having non-adhesive properties against the hardened concrete, and the second end of said tie member is positioned between the inner and outer surfaces of said second panel member;

- (ii) first and second spaced rod members oriented generally orthogonal to said transverse direction and said first and second rod members being secured to said at least one tie member, said first and second rod members being in generally spaced, parallel and planar relation to each other, wherein said first rod member is in abutting relation with said first connector and second rod member abuts with the inner surface of the said second panel member positioning said second panel orthogonally to said tie member;

wherein said first and second connectors are connected to said at least one transverse tie member such that said first and second panel members are held in slight compression between first and second rod members and the respective first and second connectors, resulting in the formation of a substantially rigid panel unit wherein the said panels are held in a substantially rigid position relative to the said spacer.

- 85. (Previously Presented) A panel unit as claimed in claim 84 wherein said second connector has a cap portion with an outer surface that does not protrude beyond the outer surface of the second panel member.

- 86. (Previously Presented) A panel unit for use as part of a concrete form for a concrete wall, said panel unit comprising:

- (a) first and second panel members being made from foamed plastic and spaced apart in a transverse direction to define a form space there between, said first panel member having an inner surface facing an inner surface of the second

-Page 9-

panel member; said first and second panel members each having outer surfaces, each of said outer surfaces being opposed to respective said inner surfaces of said first and second panel members; said inner surface of said first panel member having non-adhesive properties in relation to hardened concrete held in said form space;

- (b) a spacer transversely disposed between said first and second panel members and holding said panel members in generally spaced parallel relation to each other, said spacer comprising:
 - (i) first and second spaced transverse tie members oriented generally in a transverse direction and each having a first end and an opposite second end, each said first end being adapted for securing said respective transverse tie member to a respective first connector mounted to said first panel member, and each second end being adapted for securing said respective transverse tie member to a respective second connector mounted to said second panel, said connectors mounted to said first panel being adapted to be removed from said tie members from said outer surface when said form space is filled with concrete;
 - (ii) first and second spaced rod members oriented generally orthogonal to said transverse direction and said first and second rod members being secured to and extending between said first and second tie members, said first and second rod members being in generally spaced, parallel and planar relation to each other, wherein said first rod member is in abutting relation with each of said first connectors and second rod member abuts with the inner surface of the said second panel member;

-Page 10-

wherein said first and second connectors are connected to said first and second tie members such that said first and second panel members are held in slight compression between first and second rod members and the respective first and second connectors, resulting in the formation of a rigid panel unit wherein the said panels are held in a substantially rigid position relative to the said spacer.

87. (Previously Presented) A panel unit as claimed in claim 86 wherein said second connectors have outer surfaces that do not protrude beyond the outer surface of the second panel member.
88. (Previously Presented) A panel unit as claimed in claim 86 wherein at least said inner surface of said first panel member is made from said foam plastic laminated with a plastic film, wherein said plastic film will tend not to bond extensively to hardening or hardened concrete.
89. (Currently Amended) A panel unit for use as part of a concrete form for a concrete wall, said panel unit comprising:
- (a) first and second panel members, said panel members being spaced apart and oriented generally in a first longitudinal direction, said panel members defining a form space there between;
 - (b) a spacer comprising:
 - (i) at least one transverse tie member generally oriented in a second transverse direction that is orthogonal to said first direction, said tie member being secured to and extending between said first and second panel members, said at least one transverse tie member having a first end and an opposite second end each said end being adapted for

-Page 11-

securing said transverse tie member to a connector to mount said spacer to said first and second panel members;

- (ii) first and second rod members having first portions mounted to said tie member and said first and second rod members being oriented generally in a third direction that is orthogonal to both said first and second directions, said first and second rod members being spaced apart in said second transverse direction and said first and second rods being in generally spaced, and generally parallel relation to each other, each of said first and second rod members having end portions that extend from said first portions in a fourth and fifth direction respectively that are oriented at a first angle and a second angle respectively that are between said first and third directions;
- (iii) a first transverse rod member secured proximate to or at said end portion of said first and second rod members and extending generally in said second transverse direction between said first and second rod members;
- (iv) a second transverse rod member secured to said end portions of each of said first and second rod members, said second transverse rod member being spaced in said first and third directions from said first transverse rod member, and said second transverse rod member extending generally in said second transverse direction between said first and second rod members;

wherein said first and second rod members, and said first and second transverse rod members define and provide there between a retaining cell, for receiving there

-Page 12-

through and retaining an elongated reinforcement member that may be oriented generally in said first or third directions.

90. (Previously Presented) A panel unit as claimed in claim 89 wherein said fourth and fifth directions are orthogonal to said second transverse direction.
91. (Previously Presented) A panel unit as claimed in claim 90, wherein said third direction is substantially vertical.
92. (Previously Presented) A panel unit as claimed in claim 89, wherein said first and second rod members have end portions that are oriented at first and second angles that are substantially the same angle.
93. (Previously Presented) A panel unit as claimed in claim 92, wherein said same angle is between 20 and 40 degrees measured from said first direction.
94. (Previously Presented) A panel unit as claimed in claim 89 wherein said at least one transverse tie member employed for securing said spacer to said first panel member and connector, comprises one of said first and second transverse rods.
95. (Previously Presented) A panel unit as claimed in claim 89, wherein each of said first and second rod members has a second end portion opposite to said first end portion, each said second end portions being oriented at a third and fourth angle respectively to said first portions of said first and second rod members, each of said second end portions extending from said first portions in a sixth and seventh directions that are oriented at a third angle and fourth angle respectively that are between said first and third directions, and wherein said spacer further comprises:

-Page 13-

- (a) a third transverse rod member secured proximate to or at said second end portion of said first and second rod members and extending generally in said second transverse direction between said first and second rod members;
- (b) a fourth transverse rod member secured to said end portions of each of said first and second rod members, said third transverse rod member being spaced in said first and third directions from said fourth transverse rod member, and said fourth transverse rod member extending generally in said second transverse direction between said first and second rod members;

said first and second rod members, and said third and fourth transverse rod members configured to define and provide there between a second retaining cell, for receiving there through and retaining a generally vertically oriented reinforcement member.

- 96. (Previously Presented) A panel unit as claimed in claim 95, wherein said first and second retaining cells are substantially aligned in said second and third directions and spaced in said first direction to permit a reinforcement member generally oriented in said first direction to be retained in both said first and second retaining cells.
- 97. (Previously Presented) A panel unit as claimed in claim 95 wherein said third direction is substantially vertical.
- 98. (Previously Presented) A panel unit as claimed in claim 95, wherein said first and second rod members have second end portions that are each oriented at substantially the same angle to said first portions of said first and second rod members.

-Page 14-

99. (Previously Presented) A panel unit for use as part of a concrete form for a concrete wall, said panel unit comprising:
- (a) first and second spaced apart longitudinally oriented foamed plastic panel members having inner surfaces laminated with a plastic film and defining a form space there between; said panel members having respective outer opposed surfaces;
 - (b) a spacer comprising at least one transverse tie member secured to and extending between said first and second panel members, said transverse tie member having a first end being adapted for securing said transverse tie member to a first connector to mount said spacer to first panel member, said transverse tie member having a second end being adapted for securing said transverse tie member to a second connector to mount said spacer to said second panel member; said first connector being operable to be released from said first panel member to assist in facilitating the removal of said first panel member from said tie member;
- and wherein said first connector comprises a connector assembly for use in securing a panel member to said spacer with said transverse tie member, said connector assembly comprising:
- (i) a cap member having a flange cap portion and a shaft portion, said shaft portion with an end having an opening adapted to be interconnected to an end portion of said tie member; and
 - (ii) a bushing member having a flange portion and an axially aligned shaft portion with an end opposite to said flange portion, said bushing

-Page 15-

member having a continuous cavity formed in and passing through said flange portion and said shaft portion,

said shaft portion of said cap member being receivable axially into said continuous cavity of said bushing member through said flange portion toward said end of said shaft portion so as to be able to engage said end of said transverse tie member extending through said end of said bushing member into said continuous cavity

wherein said first panel member is held between said flange portion of said cap member and said flange portion of said bushing member and wherein said cap member is axially moved toward said transverse tie member, such that a panel member is compressed between said flange portion of said cap member and said flange portion of said bushing member to provide a rigid connection between said connector assembly, said first panel member and said transverse tie member.

100. (Previously Presented) A panel unit as claimed in claim 99, wherein said second end of said transverse tie member is held within said second panel member between said inner and outer surfaces such that said second panel member is held in a stable position relative to said spacer.
101. (Previously Presented) A panel unit as claimed in claim 99 wherein said first panel member has an inner surface facing an inner surface of said second panel member, and an opposite outer surface, and wherein said second panel member has an outer surface disposed opposite to said inner surface of said second panel member and wherein said inner and outer surfaces of at least said first panel member with a suitable plastic film having non-adhesive properties and that is laminated to both said inner surface and said outer surface of said first panel member, and wherein said shaft portion of said cap member is displaceable

-Page 16-

relative to said bushing member whereby said first panel member is compressed between said flange portion of said cap member and said flange portion of said bushing member.

102. (Previously Presented) A panel unit for use as part of a concrete form for a concrete wall, said panel unit comprising:
- (a) a first and second spaced apart longitudinally oriented foamed plastic panel members each of said first and second panel members having inner surfaces laminated with a plastic film and defining a form space there between;
 - (b) a spacer comprising at least one transverse tie member secured to and extending between said first and second panel members, said transverse tie member having a first end being adapted for securing said transverse tie member to a first connector to mount said spacer to first panel member, said transverse tie member having a second end being adapted for securing said transverse tie member to a second connector to mount said spacer to second panel member said first connector being releasable from said transverse tie member to assist in facilitating the release of said first panel member from said tie member;

wherein said first connector comprises a connector assembly for use in securing said first panel member to a transverse tie member, said connector assembly comprising:

- (i) a cap member having a flange cap portion and a shaft portion, said shaft portion with an end having an opening adapted to be interconnected to an end portion of a tie member;

-Page 17-

- (ii) a bushing member having a flange portion and an axially aligned shaft portion with an end opposite to said flange portion, said bushing member having a continuous cavity formed in and passing through said flange portion and said shaft portion;

said shaft portion of said cap member being receivable axially into said continuous cavity of said bushing member through said flange portion toward said end of said shaft portion for releasable engagement with said end of said tie member extending through said end of said bushing member into said continuous cavity; and

said flange portion of said bushing having at least one aperture passing there through, said aperture and having an opening for permitting the fluid communication of flowable concrete into said aperture, said aperture being configured such that when concrete flows into and hardens in said aperture, said hardened concrete in said aperture which is integrally connected to hardened concrete outside of said aperture provides an anchoring device to hold said bushing member in said hardened concrete.

- 103. (Previously Presented) A panel unit as claimed in claim 102, wherein said at least one aperture in said flange of said bushing member is configured in a generally inwardly directed generally conical shape.
- 104. (Previously Presented) A panel unit as claimed in claim 83 wherein said first connector comprises a flange cap portion and a shaft portion, said shaft portion having a blind opening with a cavity having a smooth inner wall extending along said shaft towards said flange cap portion, said first end of said transverse tie member having a plurality of separate circular teeth spaced from each other, said teeth having an outer diameter that is larger than the inner diameter of said

-Page 18-

threaded cavity in said shaft portion of said first connector, but smaller than the outer diameter of said shaft portion, said shaft portion being made of a material that will elastically deform to receive said teeth of said first end portion of said transverse tie member, such that when said first end of said transverse tie member is forced through said opening into said cavity, said inner wall will bind with said teeth to provide a connection that resists axial loading of said connector tending to push said shaft portion of said first connector out of said first end during filling said concrete form with unhardened concrete.

105. (Previously Presented) A panel unit as claimed in claim 104, wherein said shaft portion of said connector is made from polypropylene.
106. (Canceled).
107. (Previously Presented) A panel unit as claimed in claim 104, wherein said cap portion and said shaft portion are made from a rigid plastic material.
108. (Previously Presented) A panel unit as claimed in claim 84 wherein said spacer comprises said first rod member and a second rod member and wherein said first rod member, said second rod member and said transverse tie member form a substantially rigid geometrically stable grid.
109. (Previously Presented) A panel unit as claimed in claim 108 wherein said spacer comprises a second transverse tie member secured to and extending generally parallel to said first transverse tie member and between said first rod member and said second rod member such that said first rod member, second rod member and said first and second transverse tie members form a substantially rigid geometrically stable grid.

-Page 19-

110. (Canceled).
111. (Currently Amended) A panel unit for use as part of a concrete form for a concrete wall, said panel unit comprising:
- (a) a first panel member having an inner surface and an opposed outer surface; said first panel member made from a material comprising a rigid foamed plastic strengthened with a plastic film laminated to at least said inner surface of said first panel member; said plastic film laminated to said inner surface of said first panel member having non-adhesive properties in relation to hardened concrete, said first panel member having first and second spaced apertures extending from said inner surface to said outer surface of said first panel member;
 - (b) a second panel member made from a material comprising a foamed plastic and said second panel being spaced apart in a transverse direction from said first panel member to define a form space between said first panel member and said second panel member, said inner surface of said first panel member facing an inner surface of said second panel member;
 - (c) a spacer generally being transversely positioned between said first and second panel members, said spacer holding said first and second panel members in generally transversely spaced relation to each other, said spacer comprising:
 - (i) first and second transverse tie members each having a first end and an opposite second end, said first ends of each of said first and second transverse tie members being adapted for securing respectively said first and second transverse tie members to said first panel with a first

-Page 20-

connector and a second connector, mounted in respective said first and second apertures of said first panel member; said first connector and said second connector being adapted to be removable from the first and second transverse tie members after said form space has been filled with concrete and said concrete has hardened;

~~wherein~~ said material of said first panel member ~~[[is]]~~ being in a compressed state caused at least in part by interaction of said spacer and said first connector, to provide assistance in establishing a substantially rigid and geometrically stable panel unit.

112-119. (Canceled).

120. (Previously Presented) A panel unit as claimed in claim 111 wherein after said form space has been filled with concrete and said concrete has hardened, said first connector, said second connector and said first panel member can be removed such that said first panel member is disconnected from said spacer.

121. (Canceled).

122. (Previously Presented) A panel unit as claimed in claim 111 wherein said first panel member is made from rigid foamed polystyrene laminated with a plastic film.

123. (Previously Presented) A panel unit as claimed in claim 111 wherein said second panel member is made from extruded or molded foamed polystyrene.

124. (Currently Amended) A panel unit as claimed in claim 111 wherein said first connector comprises a shaft portion, said shaft portion having an end with an

-Page 21-

opening leading to a channel extending within said shaft, said channel being adapted to be interconnected to said first end of said first transverse tie member, wherein said channel and said first transverse tie member are configured such that when said first connector is connected to said first end of said first transverse tie member, said first end of said first transverse tie member is held in said channel of said shaft in such a position that said first panel member is held in compression by interaction of said first connector and said spacer.

125. (Previously Presented) A panel unit as claimed in claim 124 wherein said shaft portion has an inner smooth cavity that has a diameter that is less than the outer diameter of said first end of said first transverse tie member.
126. (Previously Presented) A panel unit as claimed in claim 125 wherein said first connector further comprises a cap member having a flange cap portion connected to a shaft portion, wherein when said shaft portion of said first connector is pushed onto said tie member, said first panel member is held in compression by said cap member.
- 127-129. (Canceled).
130. (Previously Presented) A panel unit for use as part of a concrete form for a concrete wall, said panel unit comprising:
- (a) a first panel member made from a foamed plastic having an inner surface and an opposed outer surface said inner surface of said first panel member having non-adhesive properties in relation to hardened concrete held in said form space and said inner surface being laminated with a suitable plastic film;

-Page 22-

- (b) a second panel member made from a foamed plastic and spaced apart in a transverse direction to define a form space between said first panel member and said second panel member, said inner surface of said first panel member facing an inner surface of said second panel member;
- (c) a spacer generally being transversely positioned between said first and second panel members, said spacer holding said first and second panel members in generally transversely spaced relation to each other, said spacer comprising:
 - (i) a transverse tie member having a first end and an opposite second end, said first end being adapted for securing said transverse tie member to a first connector mounted to said first panel member and said second end being adapted for securing said transverse tie member to a second connector mounted to said second panel member;
 - (ii) first and second rod members interconnected to and oriented generally orthogonally to, said transverse tie member;

wherein said second connector, said transverse tie member and said second rod member are configured such that said second panel member is held in compression between and by the interaction of said second connector and said second rod member thereby holding said second panel in a rigid or semi-rigid position relative to said spacer.

131. (Previously Presented) A panel unit as claimed in claim 130 wherein said transverse tie member comprises a first tie member and said panel unit further comprises a second transverse tie member having a first end and an opposite second end, said first end of said second transverse tie member being adapted for

-Page 23-

securing said second transverse tie member to a third connector mounted to said first panel member and said second end being adapted for securing said second transverse tie member to a fourth connector mounted to said second panel member;

wherein said first and second rod members are interconnected to said second transverse tie member, wherein said fourth connector, said second transverse tie member and said second rod member are configured such that said second panel member is held in compression between said fourth connector and said second rod member.

132. (Canceled).

133. (Previously Presented) A panel unit for use as part of a concrete form for a concrete wall, said panel unit comprising:

- (a) first and second panel members being made from a foamed plastic and spaced apart in a transverse direction to define a form space there between, said first panel member having an inner surface facing an inner surface of said second panel member; said first and second panel members each having outer surfaces, each of said outer surfaces of said first and second panel members being opposed to respective said inner surfaces of said first and second panel members;
- (b) a spacer transversely disposed between said first and second panel members and holding said first and second panel members in generally transversely spaced relation to each other, said spacer comprising:

-Page 24-

- (i) at least one transverse tie member oriented generally in a transverse direction and having a first end and an opposite second end, said first end being connected to a first connector mounted to said first panel member and said second end of said being connected to a second connector mounted to said second panel member;
- (ii) first and second spaced rod members oriented generally orthogonal to said transverse direction and said first and second rod members being secured to said at least one tie member, said first and second rod members being in generally spaced, parallel and planar relation to each other, wherein said first rod member is in abutting relation with said first connector and second rod member abuts with the inner surface of the said second panel member positioning said second panel orthogonally to said tie member;

wherein said first and second panel members are held in compression by the interaction of said spacer and each of said first and second connectors respectively to assisting in providing a substantially rigid panel unit.